

# MRL GEARLESS LIFTS BY CTV

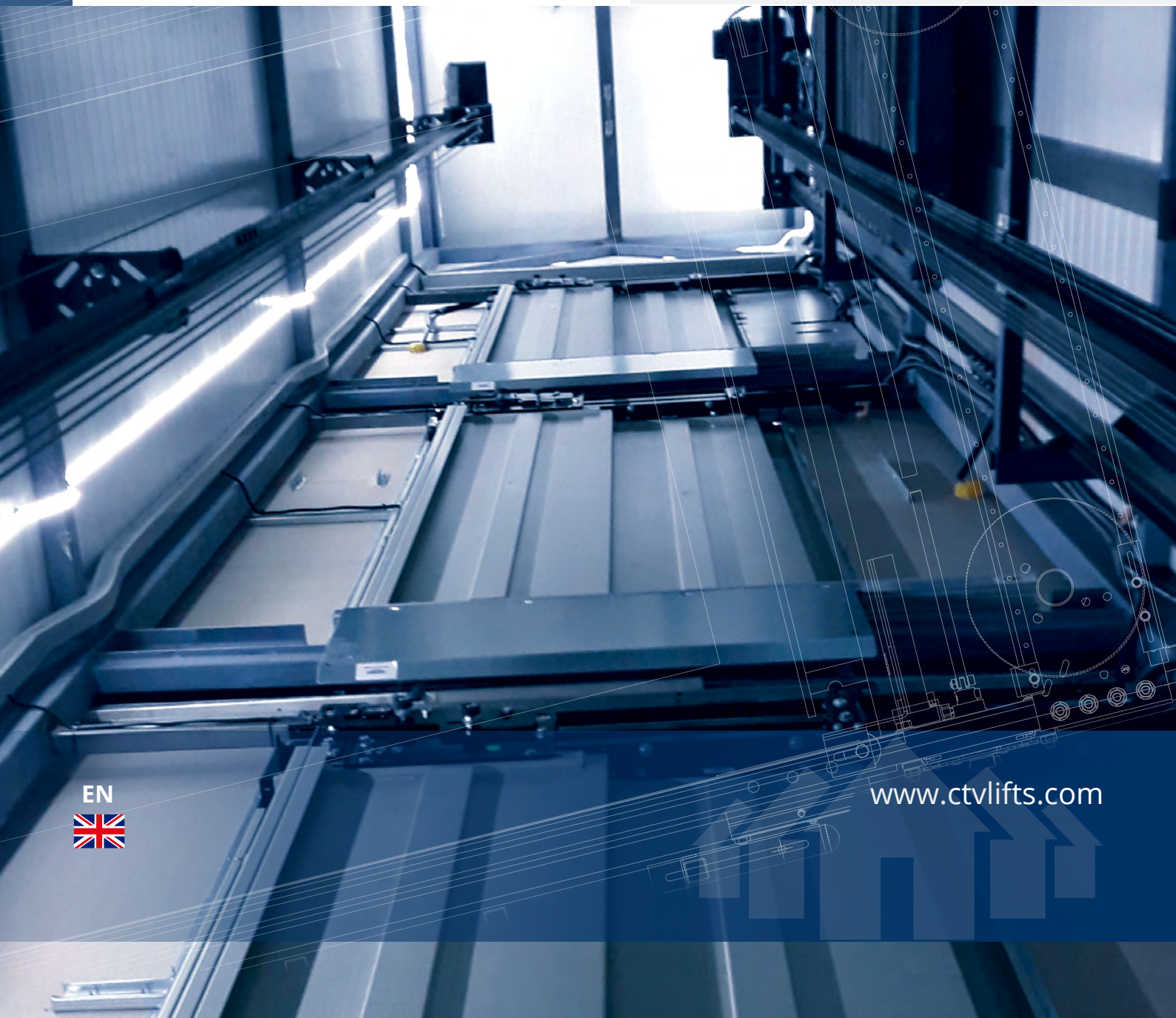
CONVENTIONAL SOLUTION 320 - 1000 KG

**CTV**

PRODUCT DESCRIPTION

PD100/01

09/04/2019



EN



[www.ctvlifts.com](http://www.ctvlifts.com)



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CTV

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## 1. APPLICATION PLUS EXPECTED USES

This range of lifts is aimed at the vertical transportation of people between designated floors, mainly in residential, commercial or industrial buildings. Other uses are also possible.

They may be installed in new buildings, in full replacements of existing lifts and in small existing shafts for the rehabilitation of buildings. The equipment is available for both MRL and conventional machine room configurations.

## 2. APPLICABLE REGULATIONS

These models of lifts can be certified in any country of the European Union as they comply to Directive 2014/33/EU relating to lifts. They also comply to the harmonized standard EN 81-20 and 50.

We offer specific solutions adapted to existing building installations, with existing shafts, complying to the harmonized standard EN 81-21.

## 3. GENERAL DESCRIPTION

Gearless MRL lifts, with conventional slings, roping ratio 2:1. They include bi-directional progressive safety gears, with the option of mounting the overspeed governor on the car sling or fixed in the headroom.

Most of the mechanical components are designed and manufactured by CTV. The possibility to choose among various car frames and counterweights allows for:

- ✓ Reduced shafts (see specifications table).
- ✓ Wider cars, given a certain shaft dimension.
- ✓ Minimised costs.
- ✓ Safety gear on counterweight.

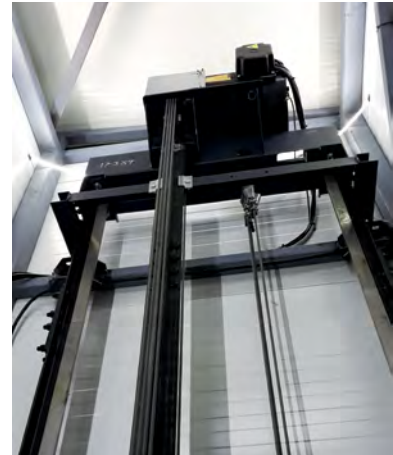
The mechanical layouts can be:

- ✓ Conventional sling with the counterweight at one side. Either suspended or underslung, both with polyamide pulley trains and high-resistance bearings.
- ✓ Conventional sling with the counterweight at the rear wall. Specially designed for existing buildings with no lift, optimizing the stairwell dimension, particularly when shaft constraints are a decisive factor. This system is evaluated upon request.



## 4. CLASIFICACION

### 4.1 LOW TRAFFIC LIFT ECO



Designed to optimise manufacturing costs. Range of payload from 320 to 630 kg.

Residential use, 60% of the trips are direct from the main floor to one of the other floors in the building.

Designed so that the P+Q parameter is below 1300 kg. This criteria limits the lift car finishes and door models available, depending on the nominal load.

With 240 mm diameter pulleys (traction rope 6.5 mm).



Maximum number of stops	Maximum trip (m)	Maximum speed (m/s)	Trips / days with over 50% of the load	Starts / hours
8	21	1	650	60 - 90

### Options

- ✓ Available with the option of mounting the overspeed governor on the car sling or fixed in the pit.
- ✓ Standardised for a range of CEG motors model Mini ACT.
- ✓ Option to install car pawl device for maintenance from the car top.
- ✓ Ferritic counterweights are standard, steel counterweights are optional.

## 4.2 LOW TRAFFIC LIFT ELITE PLUS

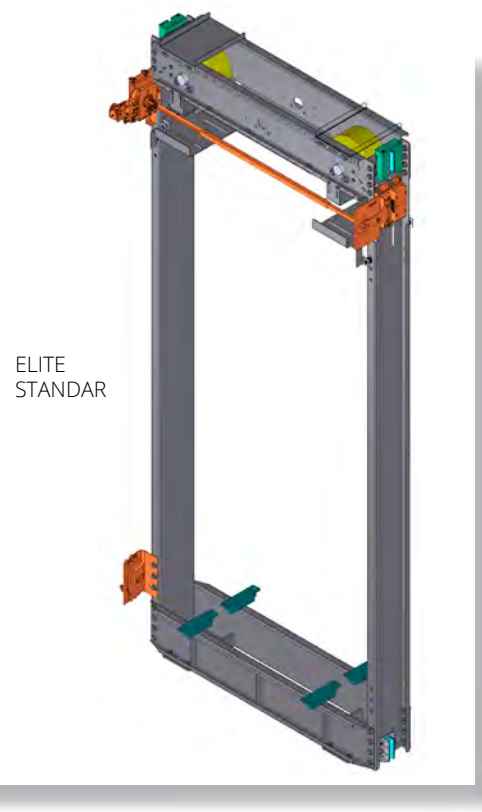
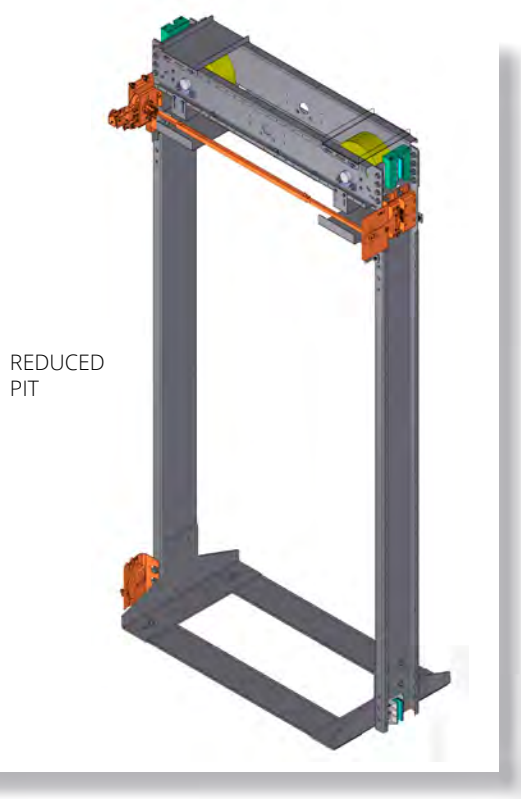
Can be manufactured for a range payload from 320 to 1000 kg, both standard passenger and stretcher / bed lift options available for 1000 kg.

Withstands a combination of P+Q of up to 2050 kg.

This mechanical packages has been designed to suit low to medium-duty traffic.

30 - 40% of the trips are direct from the main floor to one of the other floors in the building, but it has the capacity for more trips between floors, its motor withstands more starts/ hours.

With 240 mm diameter pulleys (traction rope 6.5 mm).

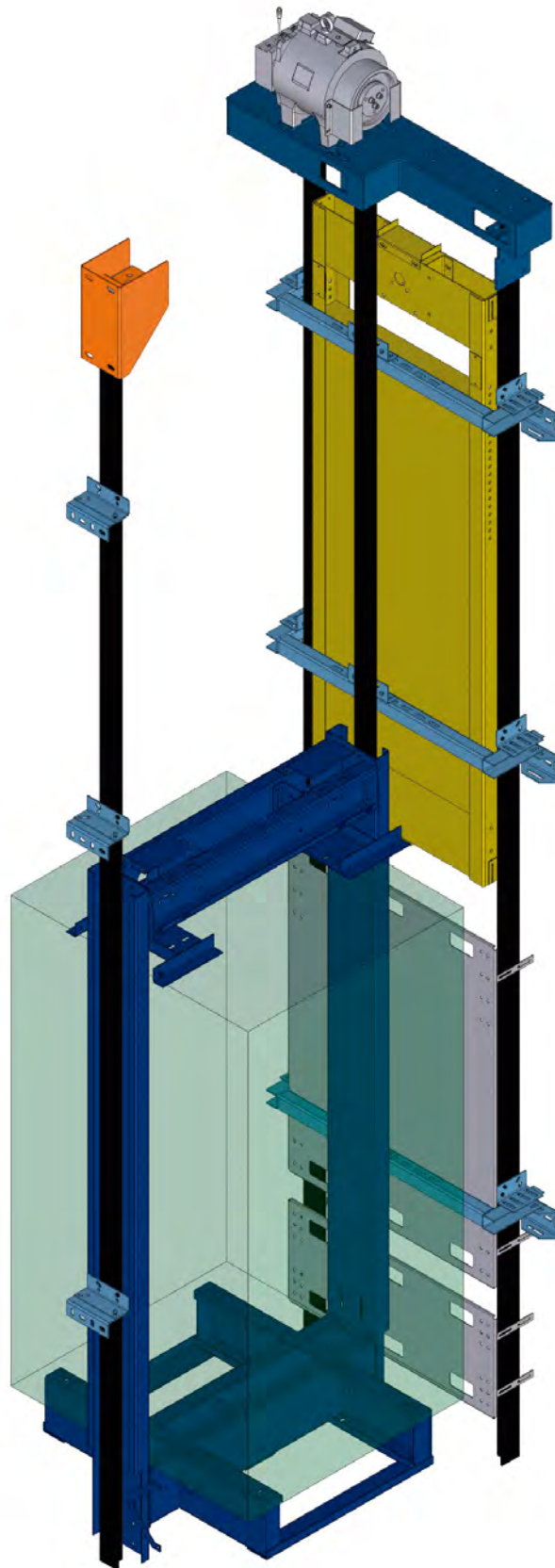


Maximum number of stops	Maximum trip (m)	Maximum speed (m/s)	Trips / days with over 50% of the load	Starts / hours
11	30	1	1000	120 - 150

### Options

- ✓ Available with the option of mounting the overspeed governor on the car sling or fixed in the pit.
- ✓ Standardised for a range of ZiehlAbegg motors, models SM190.15 and SM190.23 as well as CEG models Mini ACT.
- ✓ Option to install car pawl device for maintenance from the car top.
- ✓ Ferritic counterweights are standard, steel counterweights are optional.

4.3 MEDIUM / HIGH TRAFFIC LIFT DELUX





Can be manufactured for a range payload from 320 to 1000 kg, both standard passenger and stretcher / bed lift options available for 1000 kg.

Withstands a combination of P+Q of up to 2300 kg. So that more mechanical options are available. It is a model designed for having a high travel confort and being more solid. They can withstands a high duty load service. They are suitable for public acces buildings with high traffic.

This mechanical packages has been designed to suit medium to high traffic.

25% of the travels are considered to connect main floor with others. So a lot of travels between different floors are considered.

With 240 mm diameter pulleys (traction rope 6.5 mm).



Maximum number of stops	Maximum trip (m)	Maximum speed (m/s)	Trips / days with over 50% of the load	Starts / hours
16	40	1 -2	1600	180 - 240

### Options

- ✓ Available with the option of mounting the overspeed governor on the car sling or fixed in the headroom.
- ✓ Standardised for a range of ZiehlAbegg motors, models SM190.15 and SM190.23 as well as CEG models Mini ACT.
- ✓ Option to install car pawl device for maintenance from the car top.
- ✓ Ferritic counterweights are standard, steel counterweights are optional.

## 5. MOTORISATION

Our Gearless MRL residential lift is designed to use motors with high-quality standards specific to this segment. This lift was standardised to suit a wide range of ZiehlAbegg and CEG motors.

- ✓ The ECO model includes CEG Mini ACT motor. The ELITE model includes both CEG Mini ACT and ZiehlAbegg, model SM190.15 and SM190.23.

MINI ACT

SM 190.15.15  
SM 190.15.23

- ✓ The DELUX usually includes a ZiehlAbeggmotor as standard, CEG machines as well as other manufacturers may be chosen.



## 6. LIFT CARS CTV CARS

CTV offers a wide variety of options for cars and finishes, from standard residential interiors to bespoke and unique finishes.

- ✓ The standard options available with the ECO and ELITE models can be seen in the CTV car catalogue.
- ✓ El modelo DELUXE permite diseños personalizado

## 7. DOORS

We work with industry leading manufacturers, such as Wittur and Fermator. We offer the possibility of looking into other optional manufacturers such as Meiller, Prisma, etc.

- ✓ For light and medium traffic lifts, the doors included are the Wittur Augusta and Fermator residential models.

AUGUSTA



COMPACT



- ✓ For high-traffic lifts, the doors included are the Wittur Hydra and Pegasus. The aforementioned optional manufacturers are available upon request.

HYDRA / PEGASUS



PREMIUM / OTHERS

**Fermator**  
PIÈRES ALUMINIUMES POUR ASCENSEURS

## 8. CONTROLS

CTV provides the option to supply its lifts with the control panels push stations included. These operational elements are adapted to suit the various requirements of each market. Check with CTV for the various options available. We offer technical assistance for all of the materials that we supply, and we have our own after-sales service.

We can also supply mechanical packages only, lifts without control panels or electrical equipment. CTV will include all of the mechanical components, the motor, motor encoder, encoder cable and safety barrier / light curtain. CTV processes the necessary information to assure compatibility with all components supplied by others.

- ✓ The ECO and ELITE models are supplied with basic and conventional control panels, with parameters pre-set up to 1 m/s.
- ✓ The DELUX model can be supplied with more advanced controller performance, up to 2 m/s.

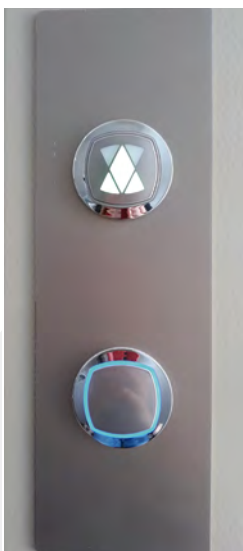
## 9. BUTTON PANELS / CALL STATION



CTV BUTTON PANELS

CTV offers a wide variety of button panel / call station designs, combining push buttons and elements from different manufacturers as well as our own designs, starting with button panel plates in different materials such as stainless steel, painted metal, etc.

- ✓ The ECO and ELITE models include the buttons shown in our current CTV button panel catalogue. These button panels have our own plates or plates from the button manufacturer, specifically the models 3D by Ceham and AT-33 by Hunio.



- ✓ The DELUX model provides a wider variety of options, the standard choice for buttons is Schaefer but other options are available, we can also design plates to suit buttons supplied by others if requested.

## **10. OPTIONS**

Our equipment is suitable for:

- ✓ EN81.72, Firefighters lifts.
- ✓ EN81.73, Behaviour of lifts in the event of fire (Fireman).
- ✓ EN81.70, categories I and II (vandal-proof).
- ✓ Special cars, panoramic cars, etc.
- ✓ Counterweight with safety gear.

## 11. DATA TABLE



PARAMETER	LOW TRAFFIC		LOW TRAFFIC PLUS		MEDIUM / HIGH TRAFFIC	
	ECO		ELITE		DELUX	
Q (kg)	300<Q<630		300<Q<1000		300<Q<1000	
P+Q (kg)	P+Q<=1300 KG		P+Q<=2050		P+Q<2300	
Max travel height (m)	21		30		40	
Speed (m/s)	1		1		1	2
Min pit SP (mm)	EN81.20	1050	1050		1050	1300
	EN81.21	300	300		500	800
Min headroom HR (mm)	EN81.20	Hi+1200 (>3200)	Hi+1200 (>3200)		Hi+1250 (>3250)	Hi+1800 (>3950)
	EN81.21				Hi+800 (>2850)	Hi+1400 (>3500)
Shaft width SW (mm)	EN81.20	CW+510	CW+550		CW+500	
	EN81.21	CW+575	CW+590		CW+580	
Shaft depth SD 1 landing (mm)	CD + KP + 70		CD + KP + 70		CD + (KP) + 70	
Shaft depth SD 2 landings (mm)	CD + 2 x KP		CD + 2 x KP		CD + 2 x KP	
Car width CW (mm)	600 < CW < 1440		600 < CW < 1440		600 < CW < 1700	
Depth CD (mm)	600 < CD < 2100		600 < CD < 2100		1000 < CD < 2100	
Interior height without suspended ceiling Hi (mm)	2000 < HI < 3000		2000 < HI < 3000		2000 < HI < 3000	
* Data with traction pulleys Ø240 mm ( cable Ø6.5 mm)						

SW calculated depending on maximum CO for each load, doors T2H

Load (kg)	320	450	630	800	1000
Open area to calculate SW (mm)	700	800		900	1000

Examples of frequent CW and CD for each nominal load

Load (kg)	320	450	630	800	1000
CW x CD	900 x 1050	1000 x 1250	1100 x 1400	1350 x 1400	1400 x 1600 / 1100 x 2100
SW x SD	1410 x 1370	1520 x 1570	1620 x 1720	1900 x 1720	1900 x 1920 / 1620 x 2500

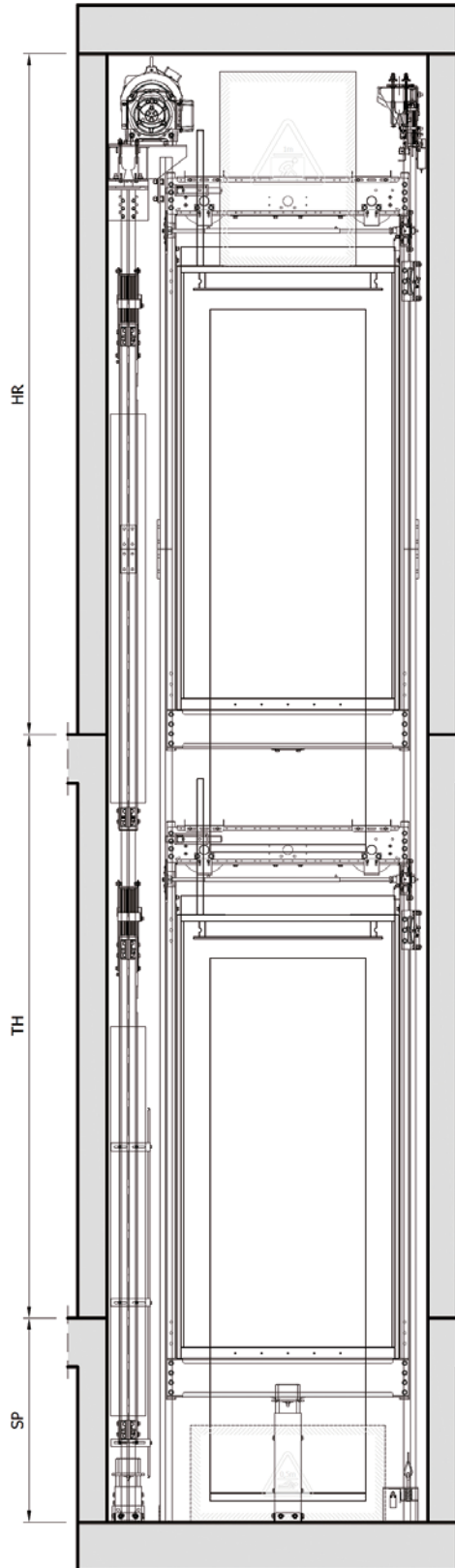
CW = Car width without decoration.

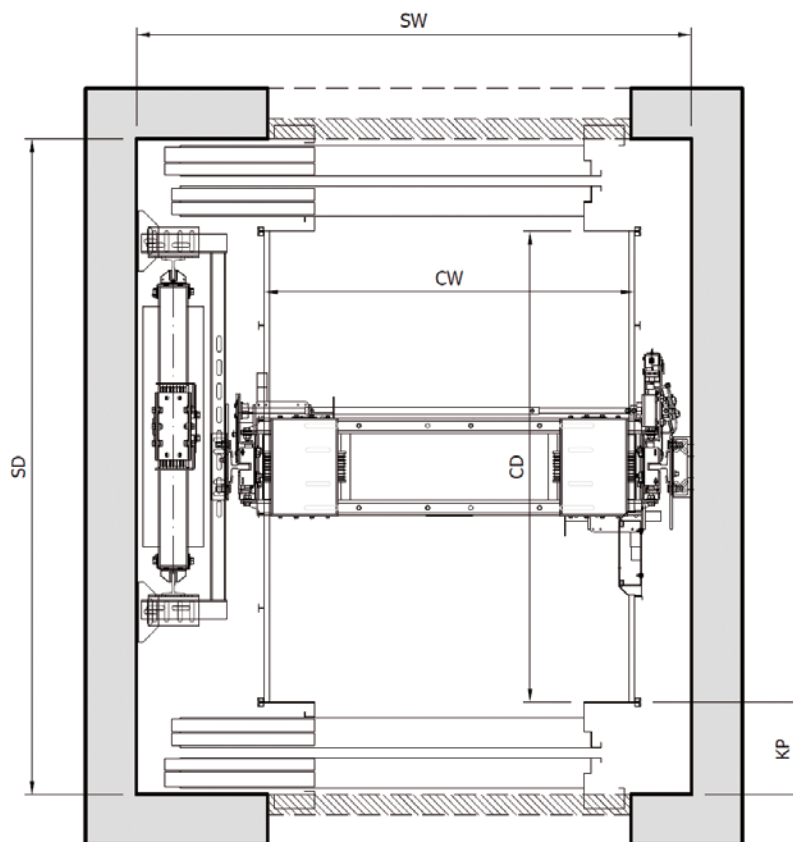
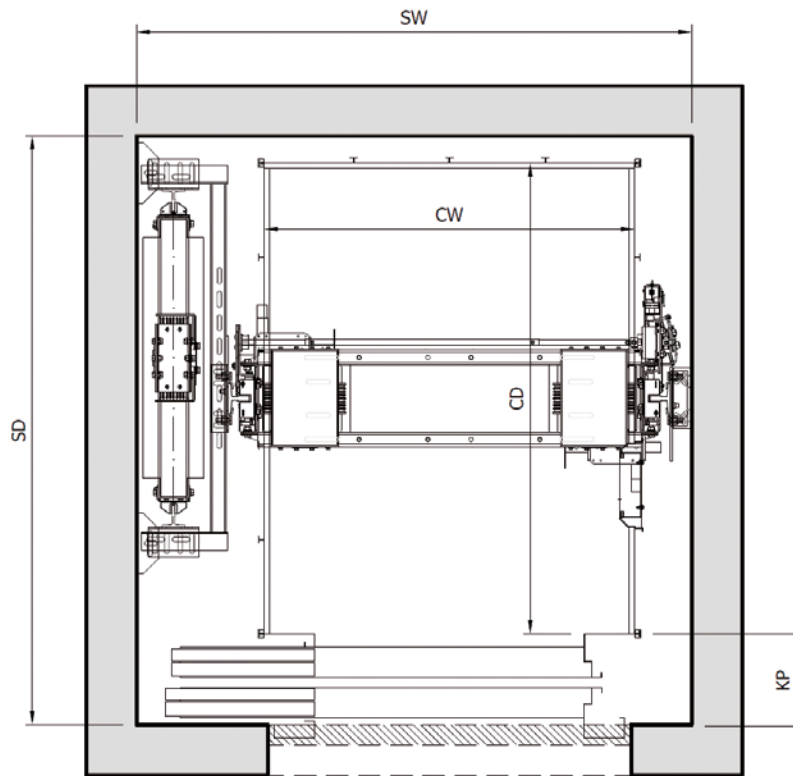
CD = Car depth without decoration.

KP = Landing door sill overhanged + gap between door sills + car door sill width + boarding width.

Hi = Car height without suspended ceiling.









COMPONENTES DE TRÁFICO VERTICAL

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